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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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48388	7590	06/27/2008		
LORUSSO & ASSOCIATES PO BOX 1915 PORTSMOUTH, NH 03801			EXAMINER JOLLEY, KIRSTEN	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,503	Applicant(s) ZOPPAS ET AL.	
	Examiner Kirsten C. Jolley	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/10/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The specification refers to claim numbers 1 and 12 on page 1, lines 23-27. It is not proper U.S. practice to refer to the claims in the specification since claims and claim numbers may change during prosecution.

Appropriate correction is required.

Claim Objections

2. Claims 6 and 12 are objected to because of the following informalities:

In claim 6, line 2, "0,6 s" should be replaced with --0.6 s--.

In claim 12, the semi-colon at the end of the claim should be a period.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 13, claim 12, line 9, and claim 15, line 4, the claims require the use of "many tanks." The term "many" renders the claims vague and indefinite because it is now

known how many tanks meet this limitation. The dependent claims are rejected because they depend from the independent claims and do not cure the deficiencies of the independent claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton et al. (US 5,211,992) in view of Shi et al. (US 2003/0194517) and Dwyer et al. (US 3,873,350).

Newton et al. discloses a process and coating plant for applying protective resin to the outer surface of bottles comprising sending bottles to a coating plant where the bottles are dipped into a coating solution (col. 9), removing the bottles from said solution, removing any excess coating from the outer surface of said bottles (col. 12, line 67 to col. 13, line 8 and col. 14, lines 38-56), removing the solvent of the solution (col. 12, lines 18-52), and solidifying and curing the resin of the coating (col. 11). Newton et al.'s process comprises: using a single bottle-transferring and conveying chain (col. 6, lines 35-39) throughout the coating plant and securing the bottles to the chain with grippers (col. 7, line 44) as soon as the bottles enter the coating plant; conveying the bottles, held vertically by the gripping devices of said chain (see Figures 1 and 15); and sending the bottles to specific segments of the plant to dry and the cure the coating.

Newton et al. lacks a teaching of using “many” tanks. (Newton et al. teaches only one tank.) However it would have been obvious for a design engineer having ordinary skill in the art to have incorporated plural smaller tanks into the coating plant design, so that multiple bottles can be immersed at the same time, or in a case where more than one row of bottles can be arranged and coated at the same time, as taught in col. 6, lines 13-23, with the expectation of similar, successful results. It is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 124 USPQ 378 (CCPA 1960).

Newton et al. also lacks a teaching of moving the immersion tank(s) up and down to perform immersion. By contrast, Newton et al. teaches movement of the bottles up and down into the immersion tanks. It would have been obvious to a design engineer having ordinary skill in the art to have substituted movement of the bottles for movement of the tank(s) with the expectation of similar results, because both processes would achieve the same result - i.e., relative movement between the bottles and tank(s) to perform immersion.

Newton et al. teaches removal of excess coating solution using a technique of applying a jet or blast of gas (col. 12, line 65 to col. 13, line 8). Newton et al. lacks a teaching of turning the bottles into a horizontal position and spinning to remove excess coating solution and to form a uniform thickness. The prior art of Shi et al. is cited to demonstrate that it is known in the bottle-coating art to perform spinning of a coated bottle to remove excess coating material, after a coating step (including coating by dipping) (paragraph 0040). It would have been obvious to have performed a step of spinning the coated bottle, either in addition to or in place of gas jet, to remove excess coating in Newton et al.’s process. One would have been motivated to look to the

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prior art for methods of spinning coated substrates to remove excess coating material thereon.

Dwyer et al. is directed to a method for coating a cylindrical substrate where a step of spinning is performed in a horizontal direction in order to remove excess coating material and provide a uniform coating (see Figure 1(f) and col. 3, line 64 to col. 4, line 7). Dwyer et al.'s process additionally includes a step of blowing gas. It would have been obvious for one having ordinary skill in the art to have performed a step of positioning the bottles in a horizontal position and performing spinning with the expectation of removing excess coating material and provide an improved, more uniform coating on the bottles, upon seeing the references in combination. The test of obviousness is not express suggestion of the claimed invention in any or all references but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them. *In re Rosselet*, 347 F.2d 847, 146 USPQ 183 (CCPA 1965); *In re Hedges*, 783 F.2d 1038.

With respect to claims 3, 12, and 20, the movement of bottles into a horizontal position for spinning would require the inclusion of rotatable gripping devices. Newton et al. discloses use of a tilting mechanism in col. 14, lines 50-56. It would have been obvious for a design engineer to have incorporated a similar mechanism in the gripping device, which not only tilts the gripping device but allows it to move to a horizontal position, in order to perform the horizontal spinning process of Newton et al. taken in view of Shi et al. and Dwyer et al. as discussed above.

As to claim 12, Dwyer et al. does not teach the use of a protective guard. However it would have been obvious to have incorporated a protective guard when incorporating a bottle spinning step in order to protect the other nearby bottles from being contaminated with excess

coating material that may fly off a spinning bottle, particularly since the bottles are spaced so close to one another in Newton et al.'s conveying mechanism.

As to claims 4 and 15, Newton et al. lacks a teaching of moving tanks horizontally and vertically, and the means for doing so, such that they are synchronized with the movement of the bottles. In the case of moving an immersion tank to meet the bottles (instead of moving the bottles into and out of the tank), it would have been obvious to make the tank travel with the bottles since the bottle conveying line of Newton et al. does not stop. The incorporation of such movement means would be within the skill of an ordinary design engineer.

As to claims 5-6, Newton et al. teaches that the period of dipping may vary according to the nature and shape of the bottles B as well as the composition of the coating material and the coating desired (col. 9, lines 23-26). Newton et al. also teaches that the bottle immersion time and rate can be adjusted (col. 9, line 59 to col. 10, line 9).

As to claim 10, an engineer skilled in the art would have known that rotation speed is a cause-effective variable depending upon the length of time of rotation, the desired coating thickness, the particular substrate and coating material used, etc. It would have been obvious to have determined the optimum spin speed for horizontal spinning to remove excess coating material through routine experimentation in the absence of a showing of criticality. It is well settled that determination of optimum values of cause effective variables such as these process parameters is within the skill of one practicing in the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980).

As to claims 11 and 14, Newton et al. does not teach a step of repeating the coating process of its invention. However it would have been within the skill of an ordinary artisan to

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have repeated the modified process of Newton et al. in order to increase the coating thickness on the bottles with the expectation of successful results. It is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 124 USPQ 378 (CCPA 1960).

As to claim 16, Newton et al.'s tanks may have a dual tank configuration for controlling the level of the paint in the tank.

As to claims 17-19, Newton et al. is silent with respect to the particular means used for supplying paint in the tank. It would have been obvious to have incorporated known means for supplying coating material to immersion tanks with the expectation of successful results, in the absence of a showing of criticality of the claimed features.

Allowable Subject Matter

7. Claims 7-9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The independent claims, as written, broadly read on performing only a single rotating/spinning step to remove excess coating material and provide a uniform coating on the bottles, which is taught in the prior art of Shi et al. as discussed above. However, if the claims are amended to require two separate rotation steps -- rotating bottles while they are in a vertical position and then in a horizontal position, the claims would be allowable over the prior art. The prior art does not teach or fairly suggest the incorporation of two rotating steps (vertical and horizontal), or means for performing the two rotating steps, in combination with the bottle

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coating process and coating plant limitations of independent claims 1 and 12. Claims 7-9 are allowable over the prior art because claim 7 specifically requires spinning the bottles in the vertical position in addition to rotating in the horizontal position.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Reed et al. (US 4,208,454) is cited to demonstrate its process of rotating a substrate in a horizontal direction after coating by dipping in order to improve distribution on the substrate (col. 6, lines 38-54).

Tojo et al. (US 7,048,975) is cited for its teaching of coating the exterior of a bottle and then performing spinning to remove excess coating material (Figures 7A and 7B and col. 10, lines 30-39).

Goodburn et al. (US 4,620,985) is cited to illustrate its process of coating while maintaining the substrate in a horizontal position.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C. Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Tuesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Kirsten C Jolley/
Primary Examiner, Art Unit 1792

kcj